

AMENDMENTS TO THE CLAIMS

1 1. (Currently amended) A method of generating a configuration comprising a
2 plurality of components each having an associated context and context state, said context state
3 equal to one or more of a plurality of values, said method comprising:

4 caching a current context state in response to a requirement for the installation of a
5 component;

6 changing the current state of the context to the associated state of the context if they are
7 not equal;

8 installing the component as part of the configuration; and

9 restoring a cached state of the context upon completing installation of the component.

1 2. (Currently amended) A server adapted to generate a configuration, the server
2 comprising:

3 a cache configured to hold a current context state in response to a requirement for the
4 installation of a component, wherein the component is one of a plurality of
5 components each having an associated context and context state, said context state
6 equal to one or more of a plurality of values;

7 a change module adapted to change the current context state to the associated state of the
8 context if they are not equal;

9 an install module adapted to install the component as part of the configuration; and

10 a restore module adapted to restore a cached state of the context upon a completion of an
11 installation of the component.

1 3. (New) The method of claim 1 wherein restoring a cached state of the context
2 upon completing installation of the component further comprises:

3 restoring a cached state of the context upon completing installation of the component
4 while retaining installation of the component as part of the configuration.

1 4. (New) The method of claim 1 wherein the configuration comprises the
2 configuration of a product selected from the group comprising: automobiles, computer
3 hardware, computer software, professional service products, financial service products, medical
4 products, pharmaceutical products, and construction products.

1 5. (New) The method of claim 1 wherein the context associated with a component
2 represents a limited set of additional components that are compatible as additions to a particular
3 configuration with the associated component.

1 6. (New) The method of claim 1 wherein the context associated with a component
2 represents a class of components that are compatible as additions to a particular configuration
3 with the associated component.

1 7. (New) The method of claim 6 wherein each component is associated with a
2 context attribute that allows identification of the context of each component, the method further
3 comprising:

4 processing the context attribute associated with the installed component to determine the
5 context associated with the installed component.

1 8. (New) The method of claim 1 wherein the context is selected from the group
2 comprising: a product line comprising compatible components, a current inventory, and a
3 country of purchase.

1 9. (New) The method of claim 1 further comprising:
2 as a result of installing the component as part of the configuration, installing one or more
3 additional components, wherein each additional installed component has an
4 associated context; and
5 nesting context states associated with each context of each additional installed
6 component; and
7 restoring a cached state of the context upon completing installation of the component
8 further comprises restoring the cached state of the context upon completing
9 installation of each additional component by restoring the nested context states in
10 reverse.

1 10. (New) The server of claim 2 wherein the restore module is further adapted to
2 retain installation of the component as part of the configuration after any restoration of the
3 cached state.

1 11. (New) The server of claim 2 wherein the configuration comprises the
2 configuration of a product selected from the group comprising: automobiles, computer
3 hardware, computer software, professional service products, financial service products, medical
4 products, pharmaceutical products, and construction products.

1 12. (New) The server of claim 2 wherein the context associated with a component
2 represents a limited set of additional components that are compatible as additions to a particular
3 configuration with the associated component.

1 13. (New) The server of claim 2 wherein the context associated with a component
2 represents a class of components that are compatible as additions to a particular configuration
3 with the associated component.

1 14. (New) The server of claim 13 wherein each component is associated with a
2 context attribute that allows identification of the context of each component and the change
3 module is further adapted to process the context attribute associated with the installed component
4 to determine the context associated with the installed component.

1 15. (New) The server of claim 2 wherein the context is selected from the group
2 comprising: a product line comprising compatible components, a current inventory, and a
3 country of purchase.

1 16. (New) The server of claim 2 wherein:
2 the cache is also configured to hold nested context states in response to a requirement for
3 the installation of additional components due to the previous installation of other
4 components and each additional installed component has an associated context;
5 and
6 the restore module is further adapted to restore the cached state of the context upon
7 completing installation of each additional component by restoring the nested
8 context states in reverse.

1 17. (New) A method of modeling a product to facilitate heterogeneous configuration
2 of the product, the method comprising:
3 representing a plurality of components in a configuration model of the product, wherein
4 at least of a subset of the components are included in at least two classes of
5 compatible components and each class of compatible components represents a
6 separate context;
7 associating a context attribute with each components in the subset of components,
8 wherein the context attribute identifies each context that includes the component
9 associated with the context attribute; and

10 a constraint for each class of compatible components that requires determination of the
11 context of each component installed in a configuration of the product.

1 18. (New) The method of claim 17 further comprising:
2 organizing the components into a hierarchy of contexts.

1 19. (New) The method of claim 17 wherein the context is selected from the group
2 comprising: a product line comprising compatible components, a current inventory, and a
3 country of purchase.

1 20. (New) The method of claim 17 wherein the product is selected from the group
2 comprising: automobiles, computer hardware, computer software, professional service products,
3 financial service products, medical products, pharmaceutical products, and construction
4 products.